

No. 830,618.

PATENTED SEPT. 11, 1906.

J. K. SHARPE, JR.
FAN FOR PNEUMATIC STACKERS.
APPLICATION FILED APR. 17, 1905.

Fig. 1.

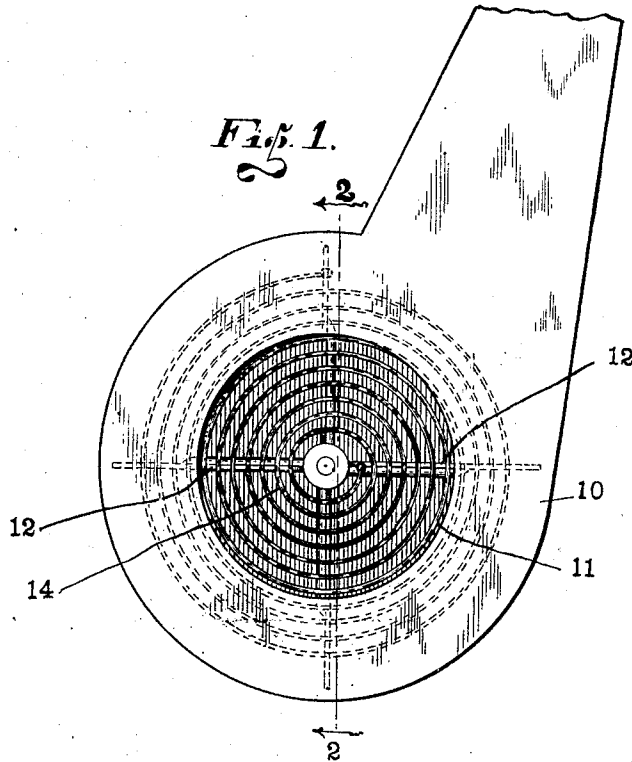


Fig. 2.

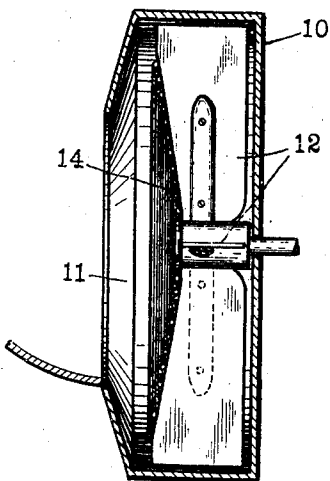
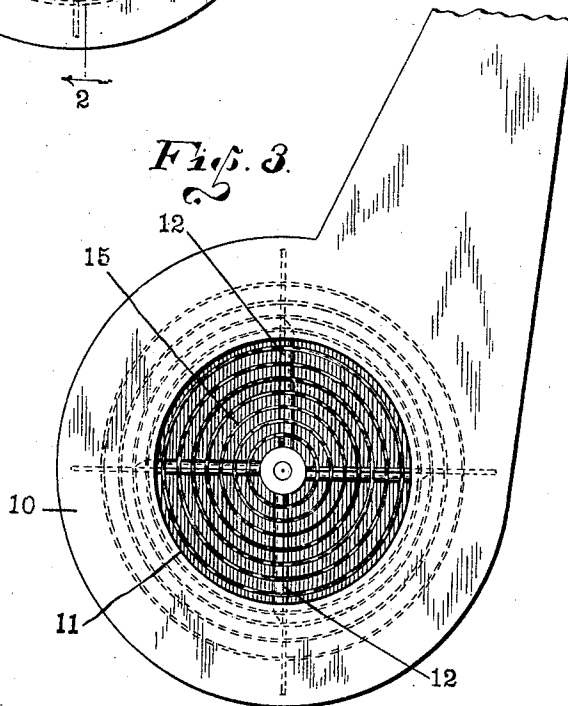


Fig. 3.



Witnesses
Adelaide Keams
J. A. Walsh,

Inventor
Joseph K. Sharpe Jr.
By
Bradford & Hood.
Attorneys

UNITED STATES PATENT OFFICE.

JOSEPH K. SHARPE, JR., OF INDIANAPOLIS, INDIANA, ASSIGNOR TO THE INDIANA MANUFACTURING COMPANY, OF INDIANAPOLIS, INDIANA, A CORPORATION OF WEST VIRGINIA.

FAN FOR PNEUMATIC STACKERS.

No. 830,618.

Specification of Letters Patent.

Patented Sept. 11, 1906.

Application filed April 17, 1905. Serial No. 256,106.

To all whom it may concern:

Be it known that I, JOSEPH K. SHARPE, JR., a citizen of the United States, residing at Indianapolis, in the county of Marion and State of Indiana, have invented certain new and useful Improvements in Fans for Pneumatic Stackers, of which the following is a specification.

The object of my invention is to provide an improvement in the construction of fans for pneumatic stackers of such character as to prevent the straw or other material from clogging the fan, yet such as not to interfere with the free ingress of air into the fan-casing.

The accompanying drawings illustrate my invention.

Figure 1 is an elevation; Fig. 2, a section on line 2 2 of Fig. 1, and Fig. 3 an elevation of a modified form.

In the drawings, 10 indicates a fan-casing of any desired form provided with an eye 11, leading into one side thereof. Journaled in the fan-casing is a fan 12 of any desired form. The parts thus far described are common and may be of any one of a large number of forms.

It has heretofore been proposed to guard the fan at the eye of the casing with a conical or flat plate-guard; but if this guard is of sufficient area to be effective against the incoming straw it will be so large as to materially decrease the capacity of the fan. My present invention consists in the provision of a series of substantially concentric separated rings, which are arranged between the eye of the fan-casing and the rotating fan. These rings may be either attached to the fan, as shown in the drawings, or may be held stationary without departing from my invention. I prefer to form these substantially concentric rings by means of the rod 14, bent into volute form, increasing in radius in a direction opposite to the direction of the rotation of the fan, so that any material striking the guard thus formed will be gradually moved outward until it can pass into the interior of the fan-casing and from thence out through the discharge-spout. So far as the guarding effect is concerned the separate concentric rings 15, arranged between the eye of the fan-casing and the fan proper, will accomplish the same result. It is preferable to

have the guard of larger diameter than the eyes of the fan, so as to prevent the straw from engaging the central portion of the fan.

I claim as my invention—

1. The combination, with a fan-casing having an eye leading therinto, of a fan rotatably mounted within the casing, and a guard consisting of a series of substantially concentric separated portions arranged between the eye of the casing and the fan.

2. The combination, with a fan-casing having an eye, of a fan rotatably mounted therein, and a series of substantially concentric separated portions attached to the edge of the fan on the eye side thereof, for the purpose set forth.

3. The combination, with a fan-casing having an eye leading therinto, of a fan rotatably mounted within the casing, and a guard consisting of a volute strip attached to the fan on the eye side thereof, for the purpose set forth.

4. The combination, with a fan-casing having an eye leading therinto, of a fan rotatably mounted within the casing, and a guard consisting of a series of substantially concentric separated portions arranged between the eye of the casing and the fan, the diameter of said guard being greater than the diameter of the eye.

5. The combination, with a fan-casing having an eye, of a fan rotatably mounted therein, and a series of substantially concentric separated portions attached to the edge of the fan on the eye side thereof, the larger ring being of greater diameter than the eye, for the purpose set forth.

6. The combination, with a fan-casing having an eye leading therinto, of a fan rotatably mounted within the casing, and a guard consisting of a volute strip attached to the fan on the eye side thereof and the outer end thereof extended beyond the diameter of the eye, for the purpose set forth.

In witness whereof I have hereunto set my hand and seal, at Indianapolis, Indiana, this 12th day of April, A. D. 1905.

JOSEPH K. SHARPE, JR. [L. s.]

Witnesses:

ARTHUR M. HOOD,
JAMES A. WALSH.